

PME278

- **EMI suppressor, class X1, metallized paper**
- **0.001 – 0.15 µF, 440 VAC, +110 °C**

- High dU/dt capability.
- Excellent self-healing properties. Ensures long life even when subjected to frequent overvoltages.
- Good resistance to ionisation due to impregnated dielectric.

- The capacitors meet the most stringent IEC humidity class, 56 days.
- The impregnated paper ensures excellent stability giving outstanding reliability properties, especially in applications having continuous operation.

TYPICAL APPLICATIONS

The capacitors are intended for use as interference suppressors in X1, across-the-line, 440 VAC applications.

CONSTRUCTION

Multi-layer metallized paper. Encapsulated and impregnated in self-extinguishing material meeting the requirements of UL 94V-0.

TECHNICAL DATA

Rated voltage

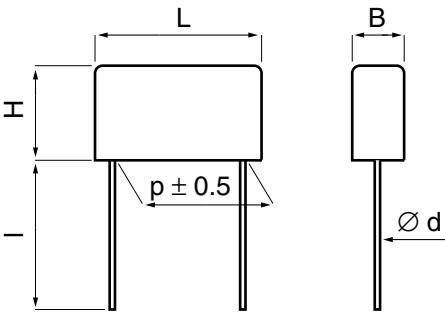
440 VAC 50/60 Hz

Capacitance range

0.001 – 0.15 µF

Capacitance tolerance

± 20%



Temperature range

-40 to +110°C

$d = 0.6$ for $p = 10.2$
 0.8 for $p = 15.2$ and 20.3
 1.0 for $p = 25.4$

Climatic category IEC

40/110/56/B

$l =$ standard : 30 +5/-0 mm
option : short leads, tolerance +0/-1 mm
(standard 6 mm, code R06)
Other lead lengths on request

Approvals

S, N, D, FI, VDE, SEV, IMQ

Dissipation factor tanδ

≤ 1.3 % at 1 kHz

Insulation resistance

≥ 12000 MΩ
Measured at 500 VDC after 60 s, +23°C

Resonance frequency

Tabulated self-resonance frequencies f_0
refer to 5 mm lead length.

In DC applications

Recommended voltage: ≤ 1000 VDC

Test voltage between terminals

The 100% screening factory test is carried out at 2700 VDC. The voltage level is selected to meet the requirements in applicable equipment standards. All electrical characteristics are checked after the test.

ENVIRONMENTAL TEST DATA

Vibration	IEC 60068-2-6 Test Fc	3 directions at 2 hour each 10 – 500 Hz at 0.75 mm or 98 m/s ²	No visible damage No open or short circuit
Bump	IEC 60068-2-29 Test Eb	4000 bumps at 390 m/s ²	No visible damage No open or short circuit
Solderability	IEC 60068-2-20 Test Ta	Solder globule method	Wetting time for $d \leq 0.8 < 1$ s for $d > 0.8 < 1.5$ s
Active flammability	EN 132400		
Passive flammability	IEC 60384-14 (1993) EN 132400		
Humidity	IEC 60068-2-3 Test Ca	+40°C and 90 – 95% R.H.	56 days

ARTICLE TABLE

Capaci- tance µF	Max dimensions in mm					Quantity per package			Weight g	Max dU/dt V/µs	Approvals				Article code			
	B	H	L	p		R30 pcs	R06 pcs	reel taped pcs			S	N	D	E	VDE	SEV	IMQ	
0.0010	3.9	7.5	13.5	10.2		1000	2000	700	0.7	53.0	2000	✓	✓	✓	✓	✓	✓	PME278RA4100MR30
0.0015	3.9	7.5	13.5	10.2		1000	2000	700	0.7	44.0	2000	✓	✓	✓	✓	✓	✓	PME278RA4150MR30
0.0022	3.9	7.5	13.5	10.2		1000	2000	700	0.7	37.0	2000	✓	✓	✓	✓	✓	✓	PME278RA4220MR30
0.0033	4.1	8.2	13.5	10.2		1000	2000	600	0.9	30.0	2000	✓	✓	✓	✓	✓	✓	PME278RA4330MR30
0.0047	5.1	10.5	13.5	10.2		800	1600	600	1.2	24.0	2000	✓	✓	✓	✓	✓	✓	PME278RA4470MR30
0.0068	5.2	10.5	18.5	15.2		500	1000	600	1.7	18.5	1400	✓	✓	✓	✓	✓	✓	PME278RB4680MR30
0.010	5.2	10.5	18.5	15.2		500	1000	600	1.7	15.5	1400	✓	✓	✓	✓	✓	✓	PME278RB5100MR30
0.015	5.5	11.1	18.5	15.2		500	1000	500	2.0	13.0	1400	✓	✓	✓	✓	✓	✓	PME278RB5150MR30
0.022	8.5	14.3	18.5	15.2		300	500	350	3.8	9.6	1400	✓	✓	✓	✓	✓	✓	PME278RB5220MR30
0.033	7.6	14.0	24.0	20.3		250	1500	250	4.0	9.6	1000	✓	✓	✓	✓	✓	✓	PME278RC5330MR30
0.047	9.0	15.0	24.0	20.3		200	1200	250	5.0	7.5	1000	✓	✓	✓	✓	✓	✓	PME278RC5470MR30
0.068	11.3	16.5	24.0	20.3		150	1000	180	7.0	6.2	1000	✓	✓	✓	✓	✓	✓	PME278RC5680MR30
0.033	8.0	17.0	27.0	22.5		200	1200	250	5.5	7.2	1000	✓	✓	✓	✓	✓	✓	PME278RD5330MR30
0.047	8.0	17.0	27.0	22.5		200	1200	250	5.5	6.0	1000	✓	✓	✓	✓	✓	✓	PME278RD5470MR30
0.068	10.0	19.0	27.0	22.5		150	1000	200	7.5	4.8	1000	✓	✓	✓	✓	✓	✓	PME278RD5680MR30
0.10	12.0	22.0	27.0	22.5		100	800	180	10.0	3.6	600	✓	✓	✓	✓	✓	✓	PME278RD6100MR30
0.10	12.1	19.0	30.5	25.4		100	800		10.0	3.9	600	✓	✓	✓	✓	✓	✓	PME278RE6100MR30
0.15	15.3	22.0	30.5	25.4		75	600		15.0	3.2	600	✓	✓	✓	✓	✓	✓	PME278RE6150MR30

APPROVALS/REFERENCE DOCUMENTS

MARKING

Certification Body	Specification	Approval reference	• RIFA • RIFA article code • Rated capacitance • Rated voltage • X1 • SH, for self healing • Climatic category according to IEC 60068-1, appendix A • Passive flammability class • Approval marks • Manufacturing code (year, month)
S	EN 132400	9516076	
N	EN 132400	P95101829	
D	EN 132400	303938	
FI	EN 132400	182572-01	
VDE	EN 132400	89760	
SEV	EN 132400	95.7 70725	
IMQ	EN 132400	V4070	

ORDERING INFORMATION

PACKING

The article code for the standard part is given in the article table.
For other options, see page 21.

Capacitors in standard design (lead length 30 mm) and with L < 24 mm and lead length 5 or 6 mm are packed bulk in a box with dimensions 245 x 145 x 80 mm. Quantity/package as per article table.

Capacitors with L ≥ 24 mm and lead length 5 or 6 mm are packed on trays piled in a box with dimensions 300 x 260 x 195 mm. Quantity/package as per article table.

Reels with taped capacitors are packed 10 in a box with dimension 370 x 370 x 560 mm. The standard quantity/reel is for 360 mm reel. If 500 mm reel is required, it must be specified when ordering and the quantity is 2 x the given quantity.